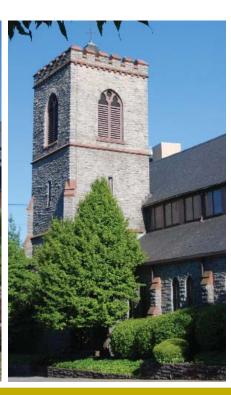
# Urban Design Manual

ENDORSED BY THE PLANNING COMMISSION ON JUNE 11, 2013













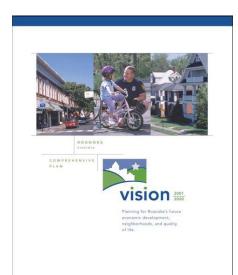
Good design is not optional. The quality of the physical environment - attractive streets, buildings, parks, and open space - has a direct impact on Roanoke's economy, the sustainability of its neighborhoods, and the successful stewardship of its unique natural and cultural resources. Simply put, Roanoke must be a beautiful city.

- Vision 2001-2020

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## Introduction



A unifying theme to implement Roanoke's vision of a sustainable and livable city is that of city design. *Vision 2001-2020* 



Well designed neighborhoods have higher, more stable property values.

Vision 2001-2020, Roanoke's Comprehensive Plan, continues the City's decade old perspective on the importance that good design has on Roanoke. Vision 2001-2020 states:

The overall goal of Vision 2001-2020 is to make Roanoke an attractive place for people of all ages, backgrounds, and income levels to live, work, shop, and play. This vision requires not only sound social and economic policies but also a strong commitment to excellence in community design and appearance. Simply put, Roanoke must be a beautiful city.

Good design is not optional. The quality of the physical environment – attractive streets, buildings, parks, and open space – has a direct impact on Roanoke's economy, the sustainability of its neighborhoods, and the successful stewardship of its unique natural and cultural resources. The community expects the highest level of excellence in building design, streetscapes, pedestrian amenities, preservation of special places, and enhancement of community distinctiveness.

The Urban Design Manual seeks to establish general design principles by combining the expectations embodied in the City's Comprehensive Plan, Neighborhood Plans, and Zoning Ordinance. These general design principles depict the attributes of the character districts that create our City and serve to preserve and enhance the character and quality of each district. The Urban Design Manual emphasizes the importance of incorporating design elements that reflect the character of the neighborhoods by recognizing their value in creating a sustainable and livable city that attracts a skilled workforce, diverse residents, and returning tourists.

Incorporating design elements that reflect the character of the neighborhoods is sometimes thought of as being expensive and exclusive. Although it can sometimes involve more investment up front, over time it generates higher returns for residents, business owners, and developers alike. This type of development pattern creates stable neighborhoods with lasting value, where people of all ages, ability and circumstance can reside by providing more options for housing, transportation, and employment. Furthermore, a built environment with lasting design appeal helps a locality remain adaptable and resilient in challenging economic climates.

#### **Benefits to Residents Could Be**

- Higher, more stable property values
- Active and healthy lifestyles
- Increased independence for people of all ages, ability, and circumstance
- Increased interaction with neighbors
- Enhanced safety through natural surveillance of properties
- Improved street safety through slower vehicle speeds and dispersed traffic volume



being used as condominiums and office space.

#### **Benefits to Business Owners Could Be**

- Creates a destination where patrons want to spend time and money
- Higher visibility due to slower speed of vehicles and alternative modes of transportation
- Assists in the promotion and branding of Roanoke, attracting new residents and tourists
- Improved marketing due to close proximity and cooperation with other local businesses
- Enhanced safety through natural surveillance of properties at all times of the day

#### **Benefits to Developers Could Be**

- Gain support for new development from surrounding property owners and decision-makers who are often more concerned about design than land use
- Ensures fewer vacancies by reducing functional obsolescence of buildings
- Higher property values
- Assists in the promotion and branding of Roanoke, attracting new residents, business, and tourists
- Increased marketability of products that are accessible to people of all ages, circumstance, and ability
- Reduced development costs through higher densities requiring less land;
   smaller parking areas requiring less grading, materials, and landscaping; and existing infrastructure connections.

This Design Manual is intended to provide direction when requesting a zoning amendment, special exception, or comprehensive/basic development plan review by articulating the expectations embodied in the City's Zoning Ordinance, Comprehensive Plan, and neighborhood plans. It is not meant to be overly specific or dictate certain styles, but provide a general framework to ensure sustainable, well-designed projects in Roanoke. This manual consists of advisory recommendations only and should not be interpreted to be regulations. Rather, it supplements the City's Zoning Ordnance, its building codes, and all other city, state, and federal regulations.

Good design is not optional. The quality of the physical environment - attractive streets, buildings, parks, and open space - has a direct impact on Roanoke's economy, the sustainability of its neighborhoods, and the successful stewardship of its unique natural and cultural resources. Simply put, Roanoke must be a beautiful city.

- Vision 2001-2020

# Principal Building



Buildings should be the most prominent and important element of any site. When thoughtful consideration is given to their placement, scale, and design —especially in relation to neighboring buildings—a cohesive environment that can survive multiple life cycles can be achieved. Multistory buildings with shallow setbacks and front facades consisting of a primary entrance, ample window openings, interesting roof lines, and durable building materials help to create this type environment without dictating a particular style. Green building features should be considered in the construction and renovation of new and existing buildings which can save the owner money throughout the life of the development. Reusing existing buildings is the best green building technique of all as it conserves the materials and energy that went into its original construction.

Buildings and trees should shape the City's image rather than asphalt and signs.

-Vision 2001-2020

Building location and design should be considered as important elements of the streetscape and should be used to define the street corridor as a public place.

-Vision 2001-2020







# Single-Family Dwellings

#### **Key Elements**

- Create a cohesive streetscape through consistent setbacks, building width, roof design, and roof pitch.
- Orient the primary entrance towards the street.
- Define the primary entrance with a large porch or stoop.
- Provide ample window openings that are vertically and horizontally aligned.
- De-emphasize parking.
- Use durable materials.



Building width, roof design, and roof pitch are the most important components of scale, even when the dwelling is located in a predominately two-story neighborhood.

The following guidelines should be used for detached single-family dwellings on their own lot. Buildings in the Mixed Use (MX) District should also use these design guidelines as they are typically residential in form, even when used commercially.

#### **Placement**

Buildings should relate to the street and to one another to create a cohesive streetscape, with the primary building façade aligned with other buildings on the same block face. Where no adjoining buildings exist, the primary building façade should abut the minimum front yard setback line. Buildings on corner lots should address both streets.

Special note about construction in Residential Agricultural areas: Avoid potential locations for street connections that may be made in the future should the property be subdivided and developed in the future.

#### Scale

While the height of adjoining buildings on the same block face should be considered, the building width, roof design, and roof pitch are the most important elements to create a cohesive streetscape. Building width should be consistent with the building widths of other buildings on the same block face. Likewise, the design and pitch of the roof should also be compatible with other buildings on the same block face. Gable, intersecting gable, and hipped roofs are the most prominent roof designs for single-family dwellings. The primary roof pitch

should never be less than 6:12, and is often as much as 12:12. Increasing the roof pitch is also a great way to provide additional living or storage space. The ideal width for gable eaves and overhangs is 18 inches which help keep buildings cool during warmer months and protects building walls from excessive moisture.

#### **Primary entrance**

One easily recognizable and accessible entrance, accompanied by a porch or stoop, should be oriented towards the primary street to create an inviting front façade. A usable front porch with an average depth of 10 feet and at least half the width of the primary building façade is encouraged as it promotes interactions with neighbors by providing important living and social space. Side entrances facing a secondary street should have a covered stoop. A sidewalk should always connect the primary entrance to the public sidewalk or street.

#### Window and door openings

The primary building façade should consist of 15 percent window and door openings on average to create a façade with visual interest, provide abundant light and air, and encourage natural surveillance. Facades facing a secondary street should consist of 10 percent window and door openings on average. Windows should be 1½ times taller than they are wide and horizontally and vertically aligned. If shutters are used, they should appear operable and to fit the window opening if they were closed.

#### Principal Building/Single-Family Dwelling



A detached garage should be located in the rear yard.



A port-cochere can be integrated into the overall design of the dwelling.



Fiber cement board can be a good alternative to wood for siding and trim. It can be ordered pre-finished.

#### Garage

To de-emphasize the automobile and reduce potential conflicts with pedestrians, vehicle accommodations should be located to the rear or side of the building. A detached garage located in the rear yard is preferred, however, if an attached garage is provided, bay doors should face the side or rear yard. If the bay must face the front yard, it should be recessed behind the primary building façade a minimum of 24 inches and include glass. A port-cochere is also acceptable on the side of a dwelling.

#### **Materials**

Building materials should be structurally durable, especially on the ground floor which has the most potential for damage. Brick, stone, wood (painted), stucco, and fiber-cement board (painted or pre-finished) are most appropriate.

Additional guidance for residential buildings and sites can be found in the City of Roanoke's Residential Pattern Book at www.roanokeva.gov/patternbook. Pre-approved single-family plans are available through the City's Residential Plans Library at www.roanokeva.gov/planslibrary



Dwelling with a two-story porch



Dwelling with a large stoop



Dwelling with a wrap-around porch

# Two-Family Dwellings

#### **Key Elements**

- Create a cohesive streetscape through consistent setbacks, building width, roof design, and roof pitch.
- Orient at least one primary entrance towards the street.
- If two entrances are provided on the primary building facade, cover with a single full-width porch or two separate porches.
- Provide ample window openings that are vertically and horizontally aligned.
- De-emphasize parking.
- Use durable materials.



Two-family dwellings should be designed to mirror single-family dwellings.

Two-family dwellings, also known as duplexes, should be designed to fit seamlessly in mixed density neighborhoods. Two-family dwellings should be designed to mirror single-family dwellings in terms of placement, scale, entrances, windows, and vehicle storage.

#### **Placement**

Buildings should relate to the street and to one another to create a cohesive streetscape, with the primary building façade aligned with other buildings on the same block face. Where no adjoining buildings exist, the primary building façade should abut the minimum front yard setback line. Buildings on corner lots should address both streets.

Corner lots are ideal for duplexes because an entrance can face each street and the additional frontage of the side street can be used for convenient on-street parking.

#### Scale

While the height of adjoining buildings on the same block face should be considered, the building width, roof design, and roof pitch are the most important elements to create a cohesive streetscape. Building widths should be consistent with the widths of other buildings on the same block face. The design and pitch of the roof should also be compatible with other buildings on the same block face. Gable, intersecting gable, and hipped roofs are the most prominent roof designs for two-family dwellings. The pitch of the primary roof should never be less than 6:12, and is often as much as 12:12. Increasing the roof pitch is also a great way

to provide additional living or storage space in a home. The ideal width for gable eaves and overhangs is 18 inches which help keep buildings cool during warmer months and protects exterior walls from excessive moisture.

#### **Primary entrance**

At least one easily recognizable and accessible entrance, accompanied by a porch or stoop should be oriented towards the primary street to create an inviting front façade. If the entrances to both units are applied to the primary building façade, they should be covered with a single, full-width front porch or two separate front porches (average depth of 10 feet and equaling to at least half the width of the primary building facade), providing important living and social space. In no case should there be more than two entrances on the primary building façade. Side and rear entrances should also be covered. A sidewalk should always connect any primary entrance to the public sidewalk or street.

#### Window and door openings

The primary building façade should consist of at least 15 percent window and door openings to create a façade with visual interest, provide light and air, and encourage natural surveillance. Facades facing a secondary street should consist of at least 10 percent window and door openings. Windows should be at least 1½ times taller than they are wide and horizontally and vertically aligned. If shutters are used, they should appear operable and fit the window opening.



Corner lots are ideal for two-family dwellings, especially when a separate entrance is provided on different facades for each unit.

#### Garage

To de-emphasize the automobile and reduce potential conflicts with pedestrians, vehicle accommodations should be located to the rear or side of the building. A detached garage located in the rear yard is preferred. However, if an attached garage is provided, bay doors should face the side or rear yard. If a bay must face the front yard, it should be recessed at least two feet behind the primary building façade and include glass. A port-cochere on the side of the dwelling is a good way to provide convenient parking without over-emphasizing it (see photo on page 5).

#### **Materials**

Building materials should be structurally durable, especially on the ground floor which has the most potential for damage. Brick, stone, wood siding (painted), stucco, and fiber-cement siding (pre-finished or painted) are most appropriate for two-family dwellings.

Additional guidance for residential buildings and sites can be found in the City of Roanoke's Residential Pattern Book at www.roanokeva.gov/pattern book.



At least one entrance, but no more than two, should be provided on the front facade.



Secondary entrance located on the side.





Two separate or one full-width front porch should be provided as important living and social space for tenants.



If a garage bay must be located on the front, recess the door at least 24 inches from the primary building facade.



Parking should be located in the rear or side yard.

## Townhouses

#### **Key Elements**

- Create a cohesive streetscape through consistent setbacks, building width, roof design, and roof pitch.
- Orient the primary entrance towards the street.
- Define the primary entrance with a large porch or stoop.
- Provide ample window openings that are vertically and horizontally aligned.
- De-emphasise parking.
- Use durable materials.



Townhomes are a very efficient residential form. They share common walls, but each unit can have it own distinct space and ownership. In order for this type of dwelling to fit seamlessly in mixed density neighborhoods, townhomes should be designed to mirror single-family dwellings in terms of placement, scale, entrances, windows, and vehicle storage.

#### **Placement**

Buildings should relate to the street and to one another to create a cohesive streetscape, with the primary building façade aligned with other buildings on the same block face. Where no adjoining buildings exist, the primary building façade should abut the minimum front yard setback line. Buildings on corner lots should address both streets.

#### Scale

While the height of adjoining buildings on the same block face should be considered, the building width, roof design, and roof pitch are the most important elements to create a cohesive streetscape. Most townhome units are about 20-25 feet wide with gable, intersecting gable, or hipped roofs. The primary roof pitch should never be less than 6:12, and is often as much as 12:12. Increasing the roof pitch is also a great way to provide additional living or storage space. The ideal width for gable eaves and overhangs is 18 inches which help keep buildings cool during warmer months and protects exterior walls from excessive moisture.

#### **Primary entrance**

Each unit should have an easily recognizable and accessible entrance oriented towards the primary street to create an inviting front facade. A front porch (minimum 6 feet in depth) covering the primary entrance is encouraged as it promotes interactions with neighbors by providing important living and social space. A sidewalk should always connect the primary entrance to the public sidewalk or street.

#### Window and door openings

The primary building façade of each unit should have at least 15 percent window and door openings to create a façade with visual interest, provide abundant light and air, and encourage natural surveillance. Facades facing a secondary street should have at least 10 percent window and door openings. Windows should be  $1\frac{1}{2}$  times taller than they are wide and horizontally and vertically aligned. If shutters are used, they should appear operable and fit the window opening.

#### Garage

To de-emphasize the automobile and reduce potential conflicts with pedestrians, vehicle accommodations should be located to the rear or side of the building. A detached garage located in the rear yard is preferred. However, if an attached garage is provided, bay doors should face the side or rear yard. If the bay must face the front yard, it should be recessed behind the primary building façade at least 24 inches and include glass.



Concrete strips de-emphasize the vehicular presence and reduce stormwater runoff.



If a garage bay must be located on the front, recess the door at least 24 inches from the primary building facade.

#### **Materials**

Building materials should be structurally durable, especially on the ground floor which has the most potential for damage. Brick, stone, wood (painted), stucco, and fiber-cement board (painted or pre-finished) are most appropriate for townhomes.

Additional guidance for residential buildings and sites can be found in the City of Roanoke's Residential Pattern Book at <a href="https://www.roanokeva.gov/patternbook">www.roanokeva.gov/patternbook</a>





Rear-loading garages remove the need for numerous curb cuts. Fewer curb cuts increases the number of on-street parking spaces and improves pedestrian safety.



These townhomes provide a transition between a single-family residential district and a neighborhood commercial district.



L-shaped plans front two streets and provide parking behind the units.



Units are usually 20-25 feet wide.



Connect the front door to the street with a sidewalk.

# Multifamily Dwellings

- Key Elements
- Create a cohesive streetscape through consistent setbacks, building width, roof design, and roof pitch.
- Orient at least one primary entrance towards the street.
- Break up the facade of large buildings into smaller modules.
- Provide ample window openings that are vertically and horizontally aligned.
- De-emphasize parking.
- Use structurally durable materials.



Buildings should be designed with ample window openings and at least one primary entrance facing the street.

Multifamily dwellings are buildings that have three or more dwelling units. This type of dwelling can fit seamlessly in mixed density neighborhoods. They should be carefully designed to be compatible with single-family dwellings in terms of placement, bulk, entrances, windows, and vehicle storage. Roanoke's older neighborhoods have many fine examples of apartment buildings that fit well because of careful attention to design.

#### **Placement**

Buildings should relate to the street and to one another to create a cohesive streetscape, with the primary building façade aligned with other buildings on the same block face. Random arrangement of buildings often found in garden apartment complexes should be avoided. Where no adjoining buildings exist, the primary building façade should abut the minimum front yard setback line. Buildings on corner lots should address both streets.

#### Scale

While the height of adjoining buildings on the same block face should be considered, the building width, roof design, and roof pitch are the most important elements to create a cohesive streetscape. The three most successful configurations for multifamily buildings are rectangular, U-shaped, and W-shaped as they break up the façade of a large building into smaller scaled modules that are closer to the size of the surrounding houses. This design allows even massiv buildings to be compatible with other housing types in a neighborhood setting. The primary building façade of rectangular buildings should always be the narrowest face of the building and should be less than 40 feet wide. Each module of U-shaped buildings should be no more than 30 feet in width while each module of W-

shaped buildings should be no more than 45 feet in width. The inner courtyards created by the U-shaped and W-shaped buildings are a good way to meet the open space requirement of the City's Zoning Ordinance.

Gable, intersecting gable, and hipped roofs are the most prominent roof designs for multifamily buildings. The primary roof pitch should be at least 6:12, and is often as much as 12:12. The ideal width for gable eaves and overhangs is 18 inches. Generous overhangs are a good feature to consider because they keep buildings cooler during warmer months and protect exterior walls from moisture.

#### **Primary entrance**

One easily recognizable and accessible primary entrance should address the primary street to create an inviting front facade. Other entrances for U- and W-shaped buildings should be oriented towards the inner courtyards. A sidewalk should always connect entrances to the public sidewalk or street.

#### Window and door openings

The three configurations described above allow windows to be placed on more than one side of the unit which creates a façade with visual interest, provides abundant light and air, and encourages natural surveillance. The primary building façade should at least 15 percent window and door openings while facades facing a secondary street should have at least 10 percent window and door openings. Windows should be 1½ times taller than they are wide and horizontally and vertically aligned. If shutters are used, they should appear operable and fit the window opening.

#### Principal Building/Multifamily Dwellings



Breaking up the facade into smaller into smaller modules allows multifamily buildings to seamlessly cohabit with other housing types.



To de-emphasize the automobile and reduce potential conflicts with pedestrians, vehicle accommodations should be located to the rear or side of the building. A detached garage located in the rear yard is preferred, however, if an attached garage is provided, bay doors should face the side or rear yard.

#### **Materials**

Building materials should be structurally durable, especially on the ground floor which has the most potential for damage. Brick, stone, wood (painted), stucco, and fiber-cement board are most appropriate for multifamily dwellings.

Additional guidance for residential buildings and sites can be found in the City of Roanoke's Residential Pattern Book at www.roanokeva.gov/patternbook.



The inner courtyard of a U-shaped building is a good way to provide usable open space for tenants.



Durable materials should be used.



Rectangular-shaped multifamily building.









Aerial View













## **Urban Commercial**

#### **Key Elements**

- Create a cohesive streetscape through zero front and side yard setbacks, narrow building or module widths, and consistent roof design.
- Orient at least one primary entrance towards the street.
- Provide ample window openings on the ground floor to create a transparent storefront.
- De-emphasize parking.
- Use durable materials.



Urban commercial areas are characterized by pedestrian-oriented development located on a grid of interconnected streets. Buildings cover most of their sites and have very shallow or no front yard setbacks. Buildings have pedestrian scaled signage, a prominent main entrance, and generous window openings oriented towards the primary street. Off-street parking, if it is provided at all, is limited in size and located to the rear or side of the building.

#### **Placement**

Buildings should relate to the street and to one another to create a cohesive and defined streetscape with the primary building façade abutting the back edge of the public sidewalk and side facades connecting to neighboring buildings where possible. Buildings on corner lots should define the corner by addressing both the primary and secondary street. If the first floor use would benefit from outdoor dining or display space on the front of the building, it may be appropriate to set the building back—up to ten feet—and extend the sidewalk into this yard area.

Special note on civic space in the Commercial-Neighborhood District, Downtown District and Urban Flex District: When civic space is provided for the public between the principal building and the street, the maximum front yard setback does not apply.

#### Scale

While the height of adjoining buildings on the same block face should be considered, building width and roof design are the most important elements to create a cohesive streetscape. Buildings should be consistent with the building width of other buildings on the block face. Likewise, roof design should be compat-

ible with other buildings on the same block face. Flat, shed, barrel, or gable roofs concealed by a parapet are the most prominent roof designs for commercial buildings. The parapet should be tall enough to screen rooftop mechanical equipment.

Special note on building modules in the Commercial-Neighborhood District and Downtown District: To maintain an interesting streetscape that encourages pedestrian activity, large buildings should be broken up into smaller modules of 50 feet or less.

#### **Primary entrance**

An prominent and accessible entrance located at grade should be oriented towards the primary street to create an inviting front façade and encourage pedestrian activity. Buildings on corner lots may be chamfered to form a corner entry.

Special note on service entrances and loading bays in the Commercial-Neighborhood District and Downtown District: Locate to the side or rear of the building and screened from public ways and adjacent properties to the greatest extent possible.

Special note on vehicle bays in the Urban Flex District. Vehicle bays, if provided on the front of the building, should directly abut the street requiring vehicles to pull within a wholly enclosed building. Bay doors should incorporate glass.



Space for outdoor dining or display can enliven the street.

# HARTSOOK HARTSOOK

A chamfered entry allows the primary entrance to address both street frontages on a corner lot.

#### Window and door openings

All facades facing a street should consist of regular window and door openings to create a façade with visual interest, provide abundant light and air, and encourage natural surveillance.

#### Commercial-Neighborhood District and Downtown District.

Ground floor windows and doors. The first floor should have at least 50% transparent glass with minimal obstruction from window signs, films, or interior display cases. Even if the first floor use does not require merchandise display, storefronts can still communicate the type of services offered.

Upper-story windows: Upper-stories should consist of a minimum 25% glass per story. Windows should be 1½ times taller than they are wide and horizontally and vertically aligned.

#### **Urban Flex District.**

Building facades should have at least 15% glass. Windows should align horizontally and vertically.



Urban commercial streetscape



To exceed the maximum front yard setback, civic space open to the public must be provided.

#### **Materials**

Building materials should be durable, especially on the ground floor which has the most potential for damage. Brick or stone are preferred, but wood (painted), stucco, or fiber-cement board (painted or pre-finished) may also be appropriate.



Urban commercial streetscape

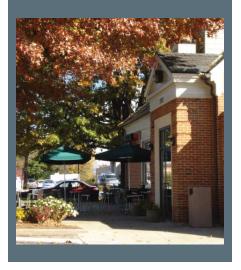


To maintain an interesting streetscape, keep building widths to 50 feet or less.

## Suburban Commercial

#### **Key Elements**

- Create a cohesive streetscape through shallow setbacks, narrow building or module widths, and consistent roof design.
- Orient at least one primary entrance towards the street.
- Provide ample window openings on the ground floor to create a transparent storefront.
- De-emphasize parking.
- Use durable materials.



Suburban commercial areas are characterized by larger sites, deep setbacks, and large expanses of parking along arterial or collector streets. New development and redevelopment within these areas should steer away from this inefficient development form and maximize use of the site through increased building coverage, appropriately-sized parking areas, pedestrian friendly facades oriented towards the primary street, and improved access for patrons using alternate modes of transportation.

#### **Placement**

Buildings should relate to the street and to one another to create a cohesive and defined streetscape with the primary building façade abutting the back edge of the public sidewalk and side facades connecting to neighboring buildings where possible. Buildings on corner lots should define the corner by addressing both the primary and secondary street. Consider if the first floor use would benefit from outdoor dining or display space on the front of the building, in which case it may be appropriate to set the building back within the maximum front yard setback.

Special note on multiple buildings on a single site in the Commercial-Large Site District: Due to the large scale of these sites, it is expected that multiple buildings will be placed on a single site. A first row of buildings should be used to define the street with the primary building façade abutting the back edge of the public sidewalk.

#### Scale

While the height of adjoining buildings on the same block face should be considered, building width, roof design, and roof pitch are the most important elements to create a cohesive streetscape. Building facades of larger buildings should be broken up into smaller modules of 50 feet or less to maintain an interesting streetscape that encourages pedestrian activity. Likewise, roof design should be compatible with other buildings on the same block face. A flat, shed, or gable roof concealed by a parapet are the most prominent roof designs for commercial buildings; however, other roof forms may be appropriate depending on the context. The parapet should be tall enough to screen rooftop mechanical equipment. Gable roofs should have a minimum 6:12 pitch.

#### **Primary entrance**

A prominent and accessible entrance should be oriented towards the primary street to create an inviting front façade and encourage pedestrian activity. Buildings on corner lots may be chamfered to form a corner entry. If the building does not directly abut the public sidewalk, a pedestrian path should connect the principal entrance to the public sidewalk. If an entrance is also needed on the façade facing a parking area, a double-sided building should be used. Service entrances and loading bays should be located to the side or rear of the building and screened from streets and adjacent properties to the greatest extent possible.



Suburban commercial streetscape.



Use structurally durable materials.



A well designed suburban commercial building.

#### Window and door openings

All facades facing a street should consist of regular window and door openings to create a façade with visual interest, provide abundant light and air, and encourage natural surveillance.

Ground floor windows and doors. The first floor of the primary building facade should have at least 50% transparent glass with minimal obstruction from window signs, films, or interior display cases. Even if the first floor use does not require merchandise display, storefronts can still communicate the type of services offered. An illuminated display window with solid back should be used in locations that cannot have functional windows due to the activity occurring in that portion of the building (e.g. storeroom).

*Upper-story windows*. Upper-stories of the primary building façade should consist of a minimum 25% glass per story. Windows should be 1½ times taller than they are wide and horizontally and vertically aligned. If shutters are used, they should appear operable and fit the window opening.

#### **Materials**

Building materials should be structurally durable, especially on the ground floor which has the most potential for damage. Brick or stone are preferred, but wood (painted), stucco, or fiber-cement board (painted or prefinished) may also be appropriate.



An illuminated display window with solid back may be used when a functional window is not possible.



A first row of buildings should be used to define the street on large commercial sites.



Corner buildings should address both street frontages.

## Industrial

#### **Key Elements**

- Create a cohesive streetscape through consistent setbacks, building widths, and roof design.
- Orient at least one primary entrance towards the street.
- Provide ample window openings.
- De-emphasize parking.
- Use durable materials.



A well designed industrial building. The design makes it \_\_\_\_\_\_ for adaptive reuse.

The following design guidelines should be used for industrial development in both urban and suburban areas. Industrial development is typically characterized by large sites with perimeter fencing, outdoor storage, deep setbacks, and large expanses of parking. New development or redevelopment of industrial properties should steer away from this inefficient development form and maximize the use of sites through increased building coverage, appropriately-sized parking areas, and an improved presence along primary streets. Such attention to good design opens up possibilities for the future; many of Roanoke's fine industrial buildings are attractive for adaptive reuse and are seeing second and third lives as residences, offices, restaurants, and retail uses.

#### **Placement**

Buildings should relate to the street and to one another to create a cohesive and defined streetscape with the primary building façade abutting the back edge of the public sidewalk. Buildings on corner lots should define the corner by addressing both the primary and secondary street.

#### Scale

While the height of adjoining buildings on the same block face should be considered, building width and roof design are the most important elements to create a cohesive streetscape. Buildings should be within 20 percent the width of other buildings on the block face. Likewise, roof design should also be compatible with other buildings on the same block face. Flat, shed, barrel, or gable roofs concealed by a parapet are the most prominent roof designs for industrial buildings. The parapet should be tall enough to conceal rooftop mechanical equipment (approximately 42 inches).

#### **Primary entrance**

An easily recognizable and accessible entrance should be oriented towards the primary street to create an inviting front façade. Buildings on corner lots may be chamfered to form a corner entry. If the building does not directly abut the public sidewalk, a pedestrian path should connect the principal entrance to the public sidewalk. Vehicle bays directly abutting the street that allow vehicles to pull within a wholly enclosed building may be appropriate. Bay doors should incorporate glass.

#### Window and door openings

The primary façade should have at least 15% glass per story to create a façade with visual interest, provide abundant light and air, and encourage natural surveillance. Windows should horizontally and vertically align.

#### **Materials**

Building materials should be structurally durable, especially on the ground floor which has the most potential for damage. Brick or stone are preferred, but stucco, wood (painted), or fiber-cement board (painted or pre-finished) may also be appropriate.



Large buildings should have an easily recognizable and accessible entrance oriented towards the primary street.



Use structurally durable materials.



Airport development.



Buildings should relate to the street and to one another to create a cohesive streetscape.



Abundant window openings create visual interest, provide light and air, and encourage natural surveillance.



Incorporate glass into vehicle bays.



Flat, shed, barrel, or gable roofs concealed by a parapet are the most prominent roof design.



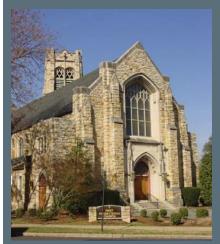


Design buildings to be adaptable in changing economic conditions.

## **Public and Institutional**

#### **Key Elements**

- Use buildings to define the street.
- Break up the facade of large buildings into smaller modules.
- Orient at least one primary entrance towards the street.
- Provide ample window openings.
- De-emphasize parking.
- Use durable materials.



The sanctuary building at a place of worship often has a steeply pitched gable roof.

The following guidelines should be used for places of worship, educational facilities, civic buildings, post offices, libraries, community centers, fire/police stations, cemeteries, parks, and other public, institutional, and community facilities. These types of developments often function as orienting features and are prominently located in a neighborhood setting. Like other development forms, these developments should define the street through building placement or decorative fencing when buildings are not primary components of the design.

#### **Placement**

Buildings may have deeper front yard setbacks than surrounding development but should still be used to define the street and work well to terminate vistas.

Special note on civic space in the Institutional District. If civic space is provided for the public between the principal building and the street, the maximum front yard setback does not apply.

Special note on building placement in the Recreation and Open Space District. Buildings should be placed to best serve its users while ensuring the least impact on natural, cultural, and other recreational features of the site.

#### Scale

Buildings may require larger proportions than adjacent buildings. To minimize the visual impact on a neighborhood with smaller scaled structures, buildings should incorporate design techniques such as breaking up the façade into smaller components and varying the roof line. A flat, shed, or gable roof concealed by a parapet are the most prominent roof designs; however, other roof forms may

be appropriate depending on the context. The parapet should be tall enough to screen rooftop mechanical equipment (approximately 42 inches). A gable roof pitch should never be less than 6:12 and is often as much as 12:12, especially for sanctuary buildings at places of worship.

Special note on roofs in the Recreation and Open Space District. Gable or hipped roofs with a pitch of 6:12 to 12:12 are preferred. A steeper roof pitch is a good way to provide extra space in a building. The ideal width for gable eaves and overhangs is 18 inches which help keep buildings cool during warmer months and protects building walls from excessive moisture.

#### **Primary entrance**

A prominent and accessible entrance should be oriented towards the primary street to create an inviting front façade and encourage pedestrian activity. Buildings on corner lots may be chamfered to form a corner entry. If the building does not directly abut the public sidewalk, a pedestrian path should connect the primary entrance to the public sidewalk. Service entrances and loading bays should be located to the side or rear of the building and screened from streets and adjacent properties to the greatest extent possible.

#### Window and door openings

The primary building facade should have at least 15% glass per story to create a façade with visual interest, provide adequate light and air, and to encourage natural surveillance. Windows should be horizontally and vertically aligned with ground floor windows beginning at a height no greater than three feet above the finished floor elevation of the primary entrance.



Large buildings should be broken up into smaller modules.



A gable roof with wide eaves helps keep the building cool in warmer months and protects walls from excessive moisture.



Wrought iron is an appropriate street wall material to define the edge of cemeteries and parks.

#### **Materials**

Building materials should be structurally durable, especially on the ground floor which has the most potential for damage. Brick or stone are preferred, but wood (painted), stucco, or fiber-cement board (painted or pre-finished) may also be appropriate.

#### **Street wall**

If a parking lot, open space, or cemetery, abuts a street, separation should be provided by a street wall between 36 and 42 inches in height. Appropriate materials include brick, stone, decorative metal, or a combination of materials. Vinyl coated chain link in a dark color may be appropriate in less prominent locations. Pedestrian access through the street wall, between 3½ and 5 feet in width, should be provided.



When a street wall shields a parking area, stone or brick pillars should be used at a minimum to provide a solid barrier between vehicles and pedestrians.



A deeper front yard setback than adjoining buildings may be appropriate for large public and institutional buildings.









Libraries, post offices, fire stations, and schools should be designed as integral parts of residential neighborhoods.

## Parking

Parking should be located on the street or to the rear or side of principal buildings, and on-street parking should be encouraged.

- Vision 2001-2020



Provide safe pedestrian accommodations through parking areas.



A lack of on-street parking and landscaping strip along with front-loaded parking areas creates a hazardous and uninviting environment for pedestrians.

Parking lots should be subordinate to the principal building, modest in scale, and comfortable for its users. To achieve these characteristics, thoughtful consideration should be given to parking area placement, access, landscaping, materials, and true parking demand. The following guidelines are applicable to all development types.

#### **Placement**

Parking areas should be placed to the rear or side of the principal building, beyond the font building line. Front loaded parking areas with access from a primary street create an uninviting streetscape, interrupt pedestrian and vehicular traffic, and reduce the available number of on-street parking spaces. On-street parking spaces count towards the minimum required and help buffer pedestrians on the sidewalk from moving vehicles.

Special note on parking placement in the Commercial-Large Site District. Parking should be located within an interior courtyard, beyond the front building line of the principal building located at the front of the lot. Safe pedestrian accommodations through the parking area to other buildings on the property or on adjoining properties should be provided.

#### Access

Access should be provided off of an alley or secondary street where possible. If access must be provided from the primary street, the number and width of curb cuts should be kept to the minimum necessary. Adjoining developments should also consider sharing access to parking areas and interparcel connectivity.

#### Landscaping

Parking areas with seven or more spaces should be divided into smaller areas by landscaped islands planted with shade trees to reduce the heat island effect and reduce stormwater runoff created by large expanses of impervious surface.

#### **Materials**

Paving methods such as concrete parking strips (AKA, a Hollywood driveway) and permeable paver systems should be used to reduce stormwater run off.

#### **Parking reductions**

Take advantage of the many reductions to minimum parking requirements provided in the Zoning Ordinance to keep the overall number of spaces provided to a minimum. Developments with different peak parking demands that vary by time of day, day of week, and/or season of year may share off-street parking areas.

#### Street wall

If a parking lot abuts a street, separation should be provided by a street wall between 36 inches and 42 inches in height. This wall should essentially extend the primary façade of the principal building to maintain a cohesive streetscape. Appropriate materials include brick, stone, decorative metal, or a combination of materials. Chain link may be appropriate in less prominent locations if the entire structure is coated in a dark colored vinyl. Pedestrian access through the wall between 3 ½ and 5 feet in width, should be provided.



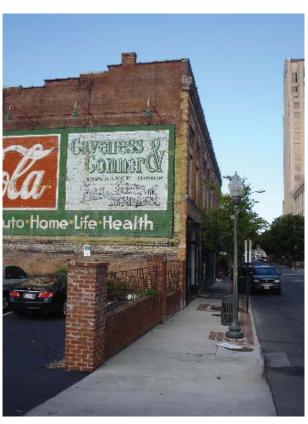
Concrete parking strips reduce stormwater runoff.



Landscaped islands planted with shade trees help reduce the heat island effect and stormwater runoff created by large expanses of pavement.



On-street parking counts towards the minimum number of spaces required.



This brick and decorative metal street wall visually extends the adjacent building facade, maintaining a cohesive streetscape.



Parking areas should be located to the rear of side of the principal building, beyond the front building line.



Permeable pavers help reduce stormwater runoff.

Roanoke will encourage on-street parking wherever possible and discourage excessive surface parking lots. *Vision 2001-2020* 

# Signs



Freestanding sign supported by

two flanking posts.

Signs are most effective when kept simple and easy to read. Not only does this reduce distractions that can be hazardous to pedestrians and motorists alike, it also promotes an attractive and healthy business climate by ensuring all signs are visible and legible. Signs should relate to the principal building in design, material, and color and be externally illuminated with the light source shielded to provide focused illumination on the sign's message. Buildings pulled close to the street with illuminated window displays function as a sign, encouraging evening window shoppers to return during business hours.

#### **Building mounted signs**

Building mounted signs are preferred, especially when integrated into the design of the building on a wall, window, cornice, awning, or parapet or hanging from a projecting bracket.

#### **Freestanding signs**

If a freestanding sign is necessary, preferred designs include a flat, double-sided sign panel supported by a central pole and decorative frame, two flanking posts, or a single post with cantilevered arm. Monument style signs are also an option.

Special note on movable sandwich board signs in the Downtown District. Sandwich board signs are a good way to present changeable information, announce special events, and identify upper floor businesses.

Special note on freestanding signs in the Commercial-Large Site District. Free-standing signs should be kept simple by advertising the name of the development only and limited in number with individual establishments in the development advertised by building mounted signs only.



Window sign.



Projecting wall sign.



Freestanding sign supported by a cantilevered arm.



Sandwich board sign.



Monument sign.

# Lighting

Lighting should be decorative and pedestrian-scaled.

- Vision 2001-2020





Freestanding light fixtures



Wall-mounted light fixture.

Lighting should be of a design, height, and location that provides sufficient illumination of the subject property while minimizing light trespass and pollution. Freestanding light fixtures should complement the design of the building, be pedestrian in scale (less than 18 feet in height), and minimize or eliminate spillover of light to other properties, especially residential districts. Wall mounted fixtures

should be incorporated into the design of the building and not produce glare on adjoining properties, pedestrians, and motorists. Accent lighting that emphasizes important building facade and site features or illuminated window displays can serve as ambient street lighting and allow for natural surveillance. The Zoning Ordinance requires all exterior lighting to be fully shielded so light does not project outward or upward.



Coordinating wall-mounted and freestanding light fixtures.



A full shield can be incorporated into most fixture styles.



Wall-mounted light fixtures should focus illumination on the intended sign or building feature only.



Illuminated window displays can serve as ambient street lighting and allow for natural surveillance.



Accent building features or signage with wall-mounted lighting.

## Landscaping

Parking lots should have trees located in the interior of the site and along street frontages.

- Vision 2001-2020



Provide seasonal interest with plants that peak at different times of the year.

Roanoke will maintain and increase its tree canopy coverage as a way to improve air quality.

- Vision 2001-2020

Selected landscaping should include diverse, indigenous plant species that are suitable for urban environments with an emphasis placed on shade trees. Large shade trees planted along sidewalks and in parking lots improve the comfort of motorists, pedestrians, and bicyclist alike, encouraging them to spend longer periods of time patronizing local establishments. Street trees also buffer pedestrians from moving vehicles and calms traffic by visually narrowing the street. Root



A well landscaped building facade.



Shaded sidewalks create a more comfortable environment for pedestrians.

structure, height relative to overhead utility lines, shade potential, and cleanliness should be primary considerations when selecting landscaping. Roanoke encourages preservation of existing trees by giving tree canopy credits for the existing trees in healthy condition. Appropriate plant listings can be found in the City's Zoning Ordinance, Subdivision Ordinance, and Street Design Guidelines.



Landscape building facades, especially when lacking architectural interest.



Street trees shield pedestrians from moving vehicles.

Trees are an essential element of the streetscape and should be planted along all non-suburban streets. Wherever possible, trees should be planted so that they create a canopy over the roadway.

- Vision 2001-2020



Shaded parking spots are always preferred by motorists.

# **Utilitarian Functions**

Outdoor storage should be shielded from public view, and perimeter fencing should be attractive.

- Vision 2001-2020



Rooftop mechanical equipment should be screened from the street by a parapet.

The negative appearance of overhead utility lines should be minimized through relocation to alleys or underground.

- Vision 2001-2020



Burying utility lines underground helps alleviate congestion.

The thoughtful design of a site's utility functions not only adds to the attractiveness of a site, it can also improve the safety of patrons.

#### **Dumpsters**, outdoor storage, and mechanical equipment

Dumpsters, outdoor storage, and ground-mounted mechanical equipment should be located beyond the front building line and screened from view in accordance with the City's Zoning Ordinance. This location also prevents patrons from having to compete with service vehicles. Maintenance requirements should be considered when selecting fencing or screening materials.

#### Rooftop mechanical equipment

Rooftop mechanical equipment should be screened by the building's roof line with walls constructed of matching wall or roof material. The equipment itself can be further camouflaged by matching its color which the roof on which it is located.

#### **Utility lines**

Utility lines should be buried underground whenever possible. Overhead utility lines can make an area feel congested, distracting potential patrons from the businesses located along the street. They also limit the size and location of trees.



Well screened mechanical equipment at the rear of a building.





Dumpster and mechanical equipment screening can be incorporated into the building's

### **Streets**

Streets will have minimal pavement width, place greater emphasis on tree canopy and sidewalks, and include bicycle and pedestrian systems.

- Vision 2001-2020



The ideal residential street has narrow pavement, on-street parking, landscaping strip with street trees, and wide sidewalks.

Creating great streets will improve both Roanoke's image and its function, providing not only a safe but also an attractive environment for pedestrians, bicyclists, and transit riders, as well as for automobile drivers.

- Vision 2001-2020

'Character District Design Guidelines' and 'General Streetscape Element Guidelines' found in the City's *Street Design Guidelines* should be followed whenever improvements are made within public rights-of-way. The recommendations of the *Street Design Guidelines* are intended to create comfortable, safe, and efficient transport for drivers, pedestrians, and bicyclist alike. Streets that can accommodate a variety of users increase the number of patrons able to access local establishments. The chart to the right provides guidance on coordinating a property's zoning designation with the appropriate character district.

Character District	Zoning District
Downtown (D)	Downtown (D)
Village Center (VC)	Commercial-Neighborhood (CN) and Urban Flex (UF)
Recreation/Open Space (ROS)	Recreation and Open Space (ROS)
Traditional Residential Neighborhood (TN)	Mixed Use (MX) and residential districts where traditional design characteristics should be maintained or established.
Suburban Residential Neighborhoods (SB)	Residential districts where suburban design characteristics should be maintained or established.
Local Commercial (L-COM)	Commercial-General (CG)
Regional Commercial (R-COM)	Commercial-Large Site (CLS)
Industrial (IND)	Light Industrial (I-1), Heavy Industrial (I-2), and Airport (AD)

Properties with an Institutional (IN) zoning designation should adhere to the recommendations of the character district applied to adjoining properties.

Properties with a Planned Unit Development (PUD) zoning designation should adhere to the recommendations of the character district most in keeping with the proposed development type.



A typical downtown street



A typical suburban residential street



A well designed alley



Bicycle rack



Bicycle lane

## **Definitions**



Chamfered building corner



Civic space



Illuminated window display allows for natural surveillance.

**Building, green:** The practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building's lifecycle including siting, design, construction, operation, maintenance, renovation, and deconstruction.

**Building, principal:** The main building on a lot in which the primary use is conducted.

**Bulk:** The mass or size of a building.

**Chamfered:** A 45 degree cut at the corner of a building to provide an entrance that addresses both the primary and secondary street on a corner lot.

**Civic space:** Open space between the building line and the adjacent public right-of-way accessible to the general public.

**Composition:** The spatial property resulting from the arrangement of parts in relation to each other and to the whole.

**Curb cut:** The opening along the curb line at which point vehicles may enter or leave the street.

Fenestration: The arrangement of windows and doors on the façade of a building.

**Functional obsolescence:** The reduced capacity of a property or improvements to perform their intended functions due to new technology, poor design, or changes in market standards.

**Illuminated:** The deliberate application of light.

**Module:** A self-contained unit that is used in combination with other components.

**Natural surveillance:** The supervision of an area by members of the general public through the design and placement of physical features, activities, and people to maximize visibility and foster positive social interaction among legitimate users of private and public space.

**Parapet**: The extension of the main walls of a building above the roof level.

**Parking, shared:** A system of parking typically applied to differing uses that each have peak parking demands at different times within a 24 hour period, thereby allowing some parking spaces to be shared.

**Pitch:** The measure of a roof's slope or angle of incline. The slope of a roof is commonly expressed in inches of vertical rise per foot of horizontal run. For example, a 6:12 pitch means that the roof rises 6 inches for every 12 inches it runs.

**Port-cochere:** A covering attached to a building extending over a driveway designed to protect people entering or leaving a vehicle.

#### **Definitions**



#### **Roof Forms:**

**Barrel:** A roof having a semi-cylindrical cross-section. Also known as a barrel-vault or tunnel-vault. These roof forms are common in Roanoke's industrial buildings.

Flat: A roof with once surface and a very shallow slope.

**Gable:** A roof with two uniformly sloped sides extending from a central ridge with an inverted v-shaped cross-section (gable).

**Hipped:** A roof with four uniformly sloped sides extending from a cen tral ridge.

**Intersecting gable:** Two or more attached gable roofs.

**Pyramidal hipped:** A roof with four uniformly sloped sides extending from a central point.

**Shed:** A roof with one surface and a shallow slope.

**Secondary:** Inferior in importance to primary.

**Street wall:** A freestanding wall or fence with piers built on the same plane as the primary building façade for the purpose of masking a parking lot from the street.

**Sustainable:** Meeting the needs of the present generation without compromising the ability of future generations to meet their own needs.

## Acknowledgments

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